

The Joint Staff: Completing the Metamorphosis

By MARK C. NESSELRODE

Prior to 1870 the German general staff developed organizational principles and studied logistics, wargames, and planning. The staff was comprised of the best and brightest officers in the Prussian army. After a rigorous education, they served on the general staff, then returned to enhance operational units.¹ Under Helmuth von Moltke, the general staff forged the army into a premier force through superior technology, training, and strategic planning.² Similar attributes are found in our service staffs, theater commands, and Joint Staff today. The mission statement of the Joint Staff even incorporates a number of principles espoused by the German general staff.³

C⁴I for the Warrior

The information explosion presents opportunities unequaled since the industrial revolution. A nation that visualizes and pursues the potential of information systems and communications will ultimately dominate the economic and military environments. The battlefield use of railroads along with the advanced arms deployed by the German army in the late 19th century pale in comparison to military capabilities for integrated data systems and instant worldwide communications today.⁴

Doctrine exists to define new technologies and integrate them into combat, logistics, and intelligence. CJCS memoranda (such as MOP 58) and design documents (such as the *Command Center Design Handbook*) provide guidelines on interoperability, automatic data processing (ADP) architecture, and command center design.⁵ While doctrine

and policy exist to guide technological improvements, there are obstacles to joint operations of global proportions. One is the inability of joint and service operations centers to communicate in an integrated multimedia mode with theater commands. The worldwide military command and control system (WWMCCS) has been our chief communications system. Though better than having no system at all, it is cumbersome and cannot exchange data that is not in a rigid format. Yet with the exception of secure telephones and radio communications, WWMCCS was the only common capability during Desert Storm.

A growing number of communications satellites, fiber optic technology, and high data rate transmission are harbingers of real-time communications for voice, video, and data. The joint worldwide intelligence communications system (JWICS) improves teleconferencing between theater command centers and the Pentagon. Action officers in command centers worldwide rely on video, graphic, and digital data in order to manage crises. This data aids in accurately and rapidly determining force, logistics, and lift requirements. Presentations using state-of-the-art displays enable senior leaders to review, select, or reject options.

Action officers can stop transcribing mountains of data into charts and carrying them from one office to another. Technology exists to link offices, command centers, or units from terminal to terminal. Only parochialism precludes such instant communication.⁶ While each service utilizes connectivity and internal data exchange (for instance, ships, aircraft, and submarines use the Naval Tactical Data Link), there is a reluctance to share data. U.S. Transportation Command must know material requirements for forces deploying overseas. Similarly,

supporting commands, operations centers, and intelligence agencies should share data. Decision briefings require video, graphic, and digital data that should be compatible for transfer from terminal to terminal.

Incorporating service-wide connectivity for all communications media may appear simple, but it is not. The services have moved to make ADP systems interoperable. Only noncompliance with CJCS policies prevents such connectivity. Even in the Pentagon it is not possible to exchange the full range of data among operations centers. Software, protocols, and architectures used by the services and Joint Staff are often incompatible, especially in sharing data with theater or operational commanders.

Security is the common argument used to limit access to such information. But automatic data processing network management together with existing security badge technology can prevent unauthorized access to highly classified data. Security is the least serious obstacle to implementing joint connectivity and data exchange.

The Joint Staff, in concert with the Defense Information Systems Agency (DISA), has the technical expertise as well as the authority to bring both the services and theater commanders into compliance. The renovation of the Pentagon offers an excellent chance to install a state-of-the-art data network. JCS has approved collocating the National Military Command Center (NMCC) and service operations centers. This is an opportunity to establish layered security zones for personnel and information exchanges. A number of corporate headquarters have built extremely flexible data processing networks which permit access to multiple security levels.

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If the services were to implement the architecture and protocols necessary to permit access from one center to another and from terminal to terminal, two immediate benefits could be realized: data of practically any bandwidth could be exchanged, greatly enhancing operations by the services and Joint Staff; and the notion that separate ADP systems enhance service identities and relevance would be overcome. Once communication in the Pentagon is conducted in this way, resistance by theater operations centers and service commands would be inexcusable given the budgets required to support the necessary software or architectural changes. Such a transformation can be achieved because commercially available technology meets standards for interoperability and compatibility.

The Joint Staff can direct DISA to address interoperability and compatibility and to propose cost-effective, near-term solutions. Approval of a solution would affirm the need for all services to move quickly and in unison in resolving one of the most vexing issues facing the Armed Forces.

Information Technology

Advanced aids or smartware will extend tabletop gaming to policy-makers.⁷ Commanders could select and review scenario options without engaging combat forces. The ability to predict conflict outcomes using a tabletop method is limited but is immediately available and merits prompt implementation. The cost of engaging multiple combat commanders, the Joint Staff, and services in worldwide wargaming is becoming prohibitive. The development of games at the U.S. Army War College and its projected connectivity to major Army commands is a precursor to the needed connectivity among service, theater, and Joint Staff command centers.

Consolidating capabilities enhances efficiency. The ownership of systems and programs requires that the Joint Staff arbitrate disputes.⁸

Theater commanders submit integrated priority lists to the Joint Staff that can serve as the basis for service priorities. Theater-unique requirements that differ from service-unique requirements must be resolved. Through joint oversight, the Logistics Directorate (J-4) and the Force Structure, Resources, and Acquisition Directorate (J-8) are ideally suited to coordinate service input for all programs. In fact, J-4 may have the greatest potential to lead the military into the 21st century. Acquisition, procurement, repair, and transport are all areas that require reform and integration. The Logistics Directorate must be aware of maintenance and support requirements for new systems.

Dwindling R&D funding, rising manufacturing costs, and restricted budgets are compelling reasons to abandon service programs for joint ones, including fighter/attack aircraft, gun systems, and helicopters.

Service-unique capabilities—such as deep strike aircraft for the Air Force,⁹ high speed, heavy lift amphibians for the Marine Corps, and surface combatants, submarines, sealift, and aircraft carriers for the Navy—present other considerations. In addition, the Army must be able to conduct land warfare with heavy forces and sustain them inland. The specialized industrial base needed to underpin such systems may not be amenable to consolidation.

Common Training: A Hard Choice

Many training problems need resolution. For example, an initiative to train all rotary wing pilots at one site is being pursued.¹⁰ The syllabus would separate pilots to teach specialized skills such as shipboard landing qualifications. The benefit of pilots from all services training together early in their careers is inestimable. But it is not enough.



U.S. Air Force (Jim Steele)

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The service academies have unique missions which provide the education that their graduates will require well into the next century. The need to imbue service traditions and culture as well as specialized skills is not in question.¹¹ The point is whether there is any essential difference in engineering and history degrees awarded at West Point, Annapolis, Colorado Springs, or Groton. Consider the officer accession process used by the Maritime Self-Defense Force (MSDF) in Japan. The MSDF academy offers a common undergraduate program for all branches. Upon graduation, candidates proceed to service-specific training at facilities such as the naval officers school at Eta Jima. In the case of the U.S. military, existing institutions could provide four-year, baccalaureate programs for a specific number of candidates. Summer training could enable candidates to sample various services or choose specific training. Then follow-on, service-specific training would be conducted at the appropriate institution. As the military decreases in size, it is logical that all prospective officers, regardless of accession source (that is, from service academies, Reserve Officer Training Corps, and officer candidate programs) also receive advanced training such as the surface warfare officers' basic course at these institutions.

The senior service colleges need a more radical approach. Do curricula substantially vary from one to another? If the intent of the colleges is to develop strategic and operational thought with a joint foundation, the colleges should be consolidated under the aegis of the National Defense University. The number of officers requiring joint education is greater than any one campus can accommodate. The existing colleges would have a single focus and provide a similar education for all officers regardless of service. The Prussian war academy institutionalized combat efficiency by ensuring that in a given situation different staff officers, educated to a common fighting doctrine, would arrive at approximately the same

employment of available forces. In addition to personnel, this system depended on conformity to a common fighting doctrine and operational procedure.¹² This is what is required today for the Armed Forces.

The era when a single service could prepare for war by exclusively featuring its strengths and platforms is gone. Officers must be able to understand cultural biases, operational capabilities, and weaknesses of the other services with which they will train and fight as a team.

The Joint Staff and theater command staffs are substantially different today than they were a decade ago. The Goldwater-Nichols DOD Reorganization Act of 1986 required that officers get a joint education to be competitive for command and promotion, and that those promoted to flag rank after January 1994 must have had a joint duty assignment. This has positively affected the quality of the personnel and planning of the Joint Staff. Its roster now represents the best of each service.

The Way Ahead

Marginal interoperability success in Grenada confirmed what had been evident since 1947. The services were fragmented, independent organizations that had neither kept abreast of national priorities nor learned the necessary lessons.¹³ Goldwater-Nichols provided an impetus for change. It is a superb foundation for implementing substantive changes in the Joint Staff.¹⁴ The Chairman has a stronger role and the Vice Chairman, Joint Chiefs of Staff (VCJCS), provides him with a legitimate deputy. Both the Operational Planning and Interoperability Directorate (J-7) and J-8 address readiness and budget issues of concern to all services. Finally, officers assigned to the Joint Staff must meet strict rules on tour-length and qualifications, measures that have already born fruit operationally.

Of particular interest is the role of VCJCS as chairman of the Joint Requirements Oversight Council (JROC) process.¹⁵ Supported by the

Joint Staff, the JROC process is the foundation for planning, budgeting, requirements review, interoperability, force integration, and prioritization. But to achieve force integration and interoperability under JROC requires organizational changes. An alternative is to subordinate service chiefs to CJCS while allowing combatant commanders to retain their current status. (A similar change would be warranted for service secretaries vis-à-vis the Secretary of Defense.)

If service chiefs were subordinate to CJCS, various elements of each staff could coordinate with other services through the Joint Staff. Programs requiring interoperability would be identified and evaluated accordingly. Electronic connectivity would reduce the time to process actions. The top-heavy structure of Pentagon staffs would be reduced. The overall effect of the subordination of service staffs would reduce the size and the seniority of all staffs. The time devoted to preparing and reviewing actions would be cut down.

The joint oversight process would be enhanced because of the necessity for each service to coordinate budget and program requirements early. The joint action process would be a forum for the services and theater commanders to ensure interoperability. Adherence to the joint oversight process would permit consideration of programs that were service-unique and require justification in terms of the value added to the Armed Forces. Likewise, candidate programs for consolidation would be scrutinized by the services and Joint Staff prior to presentation and approval.

Few issues raised here are either new or startling. Unfortunately, the services have resisted fundamental change to such an extent that it is unlikely Congress will be content with marginal adjustments in the present structure. To paraphrase a cry often heard at the Naval Academy, "Time, tide, and formation wait for no man!" Time is running out for efforts to streamline the services into an effective joint force. It is therefore recommended that:

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▼ Service chiefs and service staffs should be subordinate to CJCS. All reductions in the Joint Staff should be stopped and manning requirements adjusted for it to carry out the planning, doctrinal, logistical, and other functions needed to implement the concepts discussed above.

▼ A concerted effort must be made to comply with industry standards consistent with the complex, redundant, and unique requirements for global command and control as mandated by the Joint Staff. ADP, communications, and information systems must be compatible with all service operations centers, theater command centers, service staffs, and NMCC at a minimum.

▼ The acquisition objectives found in the report to the President, "A Quest for Excellence," must be implemented to preserve service-unique capabilities.¹⁶ If the industry standard or minimal modifications make products acceptable to all the services, then their interests must be subordinated to the need for interoperability, maintainability, and affordability.

▼ JROC, the budget process, and national military strategy must be interlocking pieces of a single supporting effort. Data exchange, connectivity, maintenance, acquisition, and depot repair must be subjected to JROC. There is no other means to ensure that systems or families of systems will have a fair hearing and compete against all other warfighting requirements.

The United States lost many of its first battles in past wars. The Nation is unlikely, and would be imprudent, to remove itself from the international scene. There will inevitably be another first battle. The military has proven that it need not lose that engagement. The vision, intelligence, and ability to effect changes beyond the scope of those already legislated rest with the Armed Forces. Their unique capabilities deserve enhancement to guarantee combat effectiveness. The Joint Staff must complete the metamorphosis initiated by Goldwater-Nichols and capitalize on the technological revolution underway to lead us into the 21st century.

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NOTES

¹ Spenser Wilkinson, *The Brain of An Army: A Popular Account of the German General Staff* (Westminster: Archibald Constable, 1895), pp. 43-60.

² Arden Bucholz, *Moltke, Schlieffen and Prussian War Planning* (New York: St. Martin's Press, 1991), p. 57.

³ Walter Goerlitz, *History of the German General Staff* (New York: Praeger, 1953), pp. 15-49.

⁴ Goerlitz, *History*, p. 58.

⁵ The Command, Control, Communications, Computers, and Intelligence Directorate (J-6) is working to standardize C⁴I, including command center design. The Operations Directorate (J-3) is working on standardizing command centers as lead agency for Pentagon renovation as it applies to both NMCC and service operations centers. MOP 58, JCS Instruction 6212.1, and *Command Center Design Handbook* (DISA) support standardization as do initiatives for information management being led by the Office of the Secretary of Defense.

⁶ Interview with Carl H. Builder, U.S. Army War College, April 7, 1994. He stressed that the parochialism of the Navy and the changes that were evident in the policies of that service when certain communities (for example, submarine, surface warfare, or aviation) were dominant on the service staff.

⁷ Joint Pub 3-0, *Doctrine for Joint Operations* (Washington: Government Printing

Office, September 9, 1993), p. III-40, considers rehearsals on the operational level with computer-aided simulations. Joint Pub 3-02.8, *Joint Doctrine for Amphibious Operations* (Washington: Government Printing Office, October 1992), p. XII-4, references the expanding use of computer simulations to enhance amphibious operations and ensure operational security. Research is being done that would permit evolutions such as predicting enemy force locations.

⁸ Builder, *Roles and Missions*.

⁹ CJCS, *Report on the Roles, Missions, and Functions of the Armed Forces of the United States* (Washington: Joint Chiefs of Staff, February 1993), pp. III-13 through III-15.

¹⁰ CJCS, *Roles, Missions, and Functions*, p. xvi.

¹¹ Builder, *Roles and Missions*.

¹² Bucholz, *Moltke*, p. 53.

¹³ Richard A. Gabriel, *Military Incompetence: Why the American Military Doesn't Win* (New York: Hill and Wang, 1985), p. 199.

¹⁴ The Goldwater-Nichols Department of Defense Reorganization Act of 1986, Public Law 99-433, 99th U.S. Congress, October 1, 1986, pp. 25-31.

¹⁵ See CJCS, JROCM-052-92: Administrative Instruction, July 6, 1992, for a description of the mission and the members of JROC.

¹⁶ President's Blue Ribbon Commission on Defense Management, *A Quest for Excellence*, (Washington: Government Printing Office, June 1986), pp. xxi-xxx.

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